REMARKS

This Response is in reply to the Office Action mailed October 16, 2007. The Office Action rejects each of the pending claims, 21-29 and 31-40.

Claims 21, 23-27, 29, 34-35 and 39-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,110,202 (hereinafter Dornbusch) in view of US Patent 4,934,937 (hereinafter Judd). Dornbusch discloses a spatial positioning measuring system that includes one or more reflecting stations. Each reflecting station includes a rotating prism that rotates about an axis and creates a single primary laser beam. A reflective surface is positioned directly behind the prism to block the laser beam and create a reflected secondary laser beam (column 4, lines 21-32). Dornbusch is not clearly written, but it appears that the reflective surface blocks the laser beam and prevents it from traveling away from the prism beyond the reflective surface. This blocking of the laser beam results in a sector around the reflecting station being void of a laser beam. Further, a secondary beam is produced when the primary beam strikes the reflective surface. Therefore, the secondary beam also does not sweep through the voided area.

Judd is directed to a combat training system that includes a light beam mounted on a stand. The stand pivots to move the light beam within a limited sector that is less than an arc of 360°. Judd teaches that the light source can oscillate, but not fully rotate.

Therefore, neither Dornbusch nor Judd discloses a laser that creates a vertical boundary outward from the emitter around a full 360° rotation.

Claim 21 requires, *inter alia*, that the emitter is rotatable through 360° and forms a substantially continuous signal at a vertical boundary. Neither Dornbusch nor Judd discloses this aspect. Dornbusch includes a sector of the sweep envelope of the laser beam being blocked by a reflective surface. Judd discloses the light beam can travel within a limited section. Neither discloses a vertical boundary formed by the emitter through 360°. For at least

these reasons, independent claim 21 and dependent claims 23-27 are not made obvious over this combination.

Claim 29 requires, *inter alia*, that the emitter be adapted to turn 360° about a vertical support member and establish a vertical boundary around a 360° axis. Neither Dornbusch nor Judd meets these requirements. Dornbusch rotates 360°, but the beam is blocked for at least a sector of this travel, and does not establish the vertical boundary around a 360° axis. Likewise, Judd does not perform this because it does not turn 360° about a vertical support member and therefore is not able to establish a vertical boundary around a 360° axis. For at least these reasons, independent claim 29 and dependent claim 34 are not made obvious over this combination.

Claim 35 requires, *inter alia*, the step of rotating the emitter through 360° about the vertical support member and forming a substantially continuous signal at the vertical boundary such that the signal will cause a sensor to emit an alarm responsive to intrusion above a vertical boundary. Dornbusch does not include a laser that forms a substantially continuous signal 360° at the vertical boundary such that an alarm will signal responsive to intrusion of the sensor above the vertical boundary. Likewise, Judd does not rotate an emitter through 360° and form a substantially continuous signal. For at least these reasons, independent claim 35 and dependent claims 39-40 are not made obvious over this combination.

In addition, independent claims 21, 29, and 35 have been amended to further differentiate and clarify the invention. The present invention is directed to a system and method of training firefighters to remain below a heat-critical vertical boundary. The invention is designed to train firefighters to remain in a crawling (on hands and knees) position or in a prone position (lying completely face down). These positions are necessary because when a fire burns it creates heat, smoke, and poisonous gases that rise to the ceiling level. These combustion by-products bank outward once they reach the ceiling and begin to lower toward the floor, eventually filling an entire area from ceiling to floor. The sensor is therefore designed to

face toward the emitter when the firefighters are in a crawling or prone position. The alarm apparatus of Judd is designed with the sensors facing outward from the user's chest. These sensors face toward the laser when the user is in an upright position and facing towards the laser. This positioning is necessary as a training tool for teaching a soldier to fire a weapon while the soldier is in an upright position.

Claims 22, 24, 28, 31-33 and 36-38 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dornbusch in view of Judd and further in view of US Patent 5,903,345. Dependent claims 22, 24, and 28 are not made obvious for least the reasons stated above for independent claim 21. Dependent claims 31-33 are not made obvious for at least the reasons stated above for independent claim 29. Dependent claims 36-38 are not made obvious for least the same reasons stated above for independent claim 35.

In view of the above amendments and remarks, the Applicants submit the claims are in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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